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ABSTRACT

This document is designed to introduce the Environmental Protection Agency (EPA) and its programs. It is organized into four categories which discuss the legislation authorizing EPA activities, the history and present organization, the pollution control programs operated by the Agency, and budgetary appropriations. Specific program responsibilities include air, water, solid waste, pesticides, radiation, noise and toxic substances. (CS)

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THE ENVIRONMENTAL PROTECTION AGENCY: LEGISLATION, PROGRAMS AND ORGANIZATION

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1976

SE 023 483

This document has been prepared to introduce to you the Environmental Protection Agency and its programs. The document is organized to acquaint you with the legislation authorizing EPA activities, the history and present organization of EPA, the pollution control programs operated by the Agency, and the EPA budget. A more detailed explanation of the Fiscal Year 1976 budget is contained in the Justification of Appropriation Estimates which has been forwarded to the Committee on Appropriations.

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EPA LEGAL AUTHORITIES

Air

The Clean Air Act of 1970 as amended in June 1974 is the basic authority for the air pollution control program. The major features of the Act are as follows:

National Ambient Air Quality Standards - The Act directs EPA to establish national ambient air quality standards to protect the public health and welfare.

State Implementation Plans - To meet, maintain and enforce the standards each state must formulate an implementation plan. EPA must approve each plan; if a state fails to submit a satisfactory plan, EPA is required to prepare a plan for the state, which the state must then carry out. If a state fails to enforce its plan, EPA may enforce it.

New Source Performance Standards - The Act requires EPA to set standards of performance for new and modified stationary sources of pollution. These standards are not ambient standards; they are direct emission limitations for specific types of sources, such as portland cement plants.

Hazardous Air Pollutants - For pollutants which EPA believes are very toxic the Act directs EPA to set emission standards.

Auto Emission Controls - The Act requires EPA to establish regulations requiring a 90 percent reduction in the emissions of carbon monoxide and hydrocarbon from 1970 model year levels. The Act originally

established a compliance date of the 1975 model year to meet this reduction; the 1974 Energy Supply and Environmental Coordination Act amendments changed this to the 1977 model year. EPA is authorized to extend these dates by one year upon application from automobile manufacturers.

Water Quality

The Federal Water Pollution Control Act Amendments of 1972 are the primary authority for the water pollution control program.

Effluent Limitations - The law directs EPA to set effluent limitations to limit discharges of pollutants from industrial and municipal sources. The law states that limitations, requiring the application of the "best practicable control technology" for industries (secondary treatment for municipal sources), shall be achieved by July 1, 1977. Effluent limitations requiring the "best available technology" for industrial sources and "best practicable waste treatment technology" for municipal sources shall be achieved by July 1, 1983.

Water Quality Standards - Water quality standards are established for all navigable surface waters. Standards consist of a designation of the use of the stream (recreational purposes, agricultural and industrial, public water supply, etc.) and water quality criteria sufficient to protect the stream for such uses. Criteria are established for such parameters as temperature, dissolved oxygen, microbiological content, odor, etc. The standards are goals to be met through effluent limitations although where the limitations are in-

adequate to protect high quality bodies of water more stringent limitations will be applied to the sources discharging into these bodies.

Municipal Pollution Control - The Federal Water Pollution Control Act established a program of federal grants for construction or major modification of wastewater treatment plants. The Federal share for projects is 75 percent. The Act authorizes the expenditure of $18 billion through fiscal year 1975.

Planning - The Act places major emphasis on planning. Facility planning is carried out by local agencies to ensure that the most effective and efficient type of waste treatment will be selected. Integrated planning and management agencies are required to be established for all major metropolitan areas; statewide planning is also required. The Act authorizes Federal financial support to these state and local agencies.

Water Supply

The Safe Drinking Water Act of 1974 is the basic authority for the Water Supply program.

Drinking Water Regulations - The Act directs EPA to establish primary and secondary drinking water regulations--primary regulations will be those necessary to protect public health, secondary regulations will be those necessary to protect the public welfare. The primary regulations are to be promulgated no later than September 1977. The Act required EPA to publish interim primary regulations by March 16, 1975.

State Enforcement Responsibility - The states have the primary

responsibility for enforcing the regulations; if a state fails to take proper action EPA may bring suit to require compliance. The Act authorizes grants to the states to aid them in establishing enforcement and monitoring programs.

Protection of Underground Sources of Drinking Water - The Act requires EPA to publish regulations for state underground injection control programs. These regulations are to prohibit, after December 1977, underground injections which are not authorized by state permits.

Solid Wastes

The Solid Waste Disposal Act as amended by the Resource Recovery Act of 1970 is the authority for EPA's solid wastes program.

Recovery of Energy and Materials - The Act directs EPA to promote the demonstration, construction, and application of solid waste management and resource recovery systems necessary to preserve the environment and natural resources.

State and Local Assistance - The Act directs EPA to provide technical and financial assistance to states and local governments and interstate agencies in the planning and development of resource recovery and solid waste disposal programs.

Solid Wastes Guidelines - The Act directs EPA to establish guidelines, consistent with public health and welfare and established air and water standards, for solid waste collection transport, separation, recovery, and disposal systems.

Pesticides

The Federal Insecticide, Fungicide and Rodenticide Act as amended

by the Federal Environmental Pesticides Control Act of 1972 is the basic authority for the Pesticides program. It authorizes a comprehensive program to regulate the manufacturing, distribution and use of pesticides as well as major research efforts into the effects of pesticides.

Pesticide Registration - All pesticides must be registered and classified for "general" use or "restricted" use by October 1976. Those placed in the restricted category may be used only by, or under the supervision of, certified applicators.

Applicator Certification - The states will certify pesticide applicators to use restricted pesticides; certification programs must be developed and applicators certified by October 1976.

Prohibition of Misuse - The use of any registered pesticides in a manner inconsistent with labeling instructions is prohibited by the Act. The label directions and precautions are approved by EPA at the time of registration. Misuse of a pesticide is subject to civil and criminal penalties.

State Authorities - Under the Act, states may register pesticide products or issue experimental permits to meet special local needs.

Federal Assistance - The Act authorizes Federal assistance to the States for enforcement and to help develop and administer applicator certification programs.

Research and Monitoring - EPA may conduct research on pesticides

and alternatives, issue experimental use permits, and monitor pesticide use and presence in the environment.

Radiation

There is no single Act which establishes the authority for EPA's radiation abatement and control program. Under Reorganization Plan No. 3 of 1970, which established EPA, certain broad authorities were transferred to EPA. These, together with authorities vested under other Federal Acts but applicable to the EPA radiation program, establish the functional parameters for the program.

Standards and Guidelines - Under Reorganization Plan No. 3 the functions of the Federal Radiation Council were transferred to EPA. EPA issues guidance to all Federal agencies on radiation matters which will help in formulation of their standards. In addition, under the Atomic Energy Act of 1954, EPA was transferred the function of the Atomic Energy Commission to establish environmental radiation protection standards.

Monitoring and Analysis - Under the Public Health Service Act (42 USC 241) Section 301, EPA has the authority to monitor radiation levels in the environment.

State Assistance - The Public Health Service Act (42 USC 243), Section 311 provides the authority to assist states in radiation control efforts; the Federal Radiation Guidance authorizes the establishment of cooperative programs with states.

Ocean Dumping - The Marine Protection Research and Sanctuaries Act provides EPA with the authority to control the ocean disposal of radioactive wastes.

Noise

The Noise Control Act of 1972 is the authority for EPA's noise abatement and control program.

Noise Emission Standards - The Act directs EPA to identify products which are major sources of noise, and to establish noise emission standards, necessary to protect the public health and welfare, taking into consideration technology and costs. EPA is to enforce compliance with these standards.

Aircraft and Airport Noise Standards - The Act directs EPA to submit proposed regulations to control aircraft and airport noise to the Federal Aviation Agency which shall consider them prior to prescribing the same regulations, a modified regulation or no regulation. If EPA believes the FAA's action does not protect the public health and welfare it may request the FAA to review its decision and make public the reason for its action.

Labeling - The Act requires EPA to prescribe labeling regulations for any product which emits noise capable of affecting the public health and welfare or which is sold on the basis of its effectiveness in reducing noise.

Railroad Noise Standards - The Act directs EPA to establish noise emission standards for railroads taking into account the best available technology and the cost of compliance. These regulations are enforced by the Department of Transportation.

Interstate Motor Carrier Noise Standards - The Act directs EPA to establish standards for motor carriers similar to those for railroads.

II. HISTORY AND ORGANIZATION

EPA was created through an executive reorganization plan designed to consolidate certain Federal Government environmental activities into a single agency. The plan (Reorganization Plan No. 3 of 1970) was sent by the President to Congress on July 9, 1970, and EPA was established as an independent Agency in the Executive Branch on December 2, 1970.

EPA was formed by amalgamating 15 components from 5 departments and independent agencies. Water quality responsibilities were transferred from the Interior Department (the Federal Water Quality Administration) and the Department of Health, Education, and Welfare (The Bureau of Water Hygiene). Other activities transferred from HEW included the National Air Control Administration and the Bureau of Solid Waste Management.

In addition, EPA acquired the Department of Agriculture's authority to register pesticides and to regulate their use; the Food and Drug Administration's authority to set tolerance levels for pesticides which occur in or on food and to monitor compliance with those limits; and a portion of the Department of Interior's pesticides research program.

Finally, EPA assumed some of the Atomic Energy Commission's and HEW's authority for setting environmental radiation protection standards. The Agency also absorbed the duties of the Federal Radiation Council.

Organizationally, EPA is headed by an Administrator, who is supported by a Deputy Administrator and five Assistant Administrators (see chart). Three of the Assistant Administrators are responsible for "functionalized"

activities, i.e., activities which cut across all programs. The activities are: planning and management; enforcement; and research. The remaining program activities have been grouped under the two other Assistant Administrators on a media or pollutant basis, e.g., water pollution, air pollution, solid waste, etc. The activities carried out by these offices are primarily policy development; standards and criteria development; and support and evaluation of regional activities.

EPA has made major progress in the decentralization of its operating programs. It has established regional offices in conformance with the standard Federal regional boundaries and has assigned major responsibilities for carrying out EPA programs and policies to the regional offices. This includes the authority to implement and enforce standards, to conduct monitoring and surveillance programs, and to provide technical and financial assistance to State and local governments.

U. S. ENVIRONMENTAL PROTECTION AGENCY

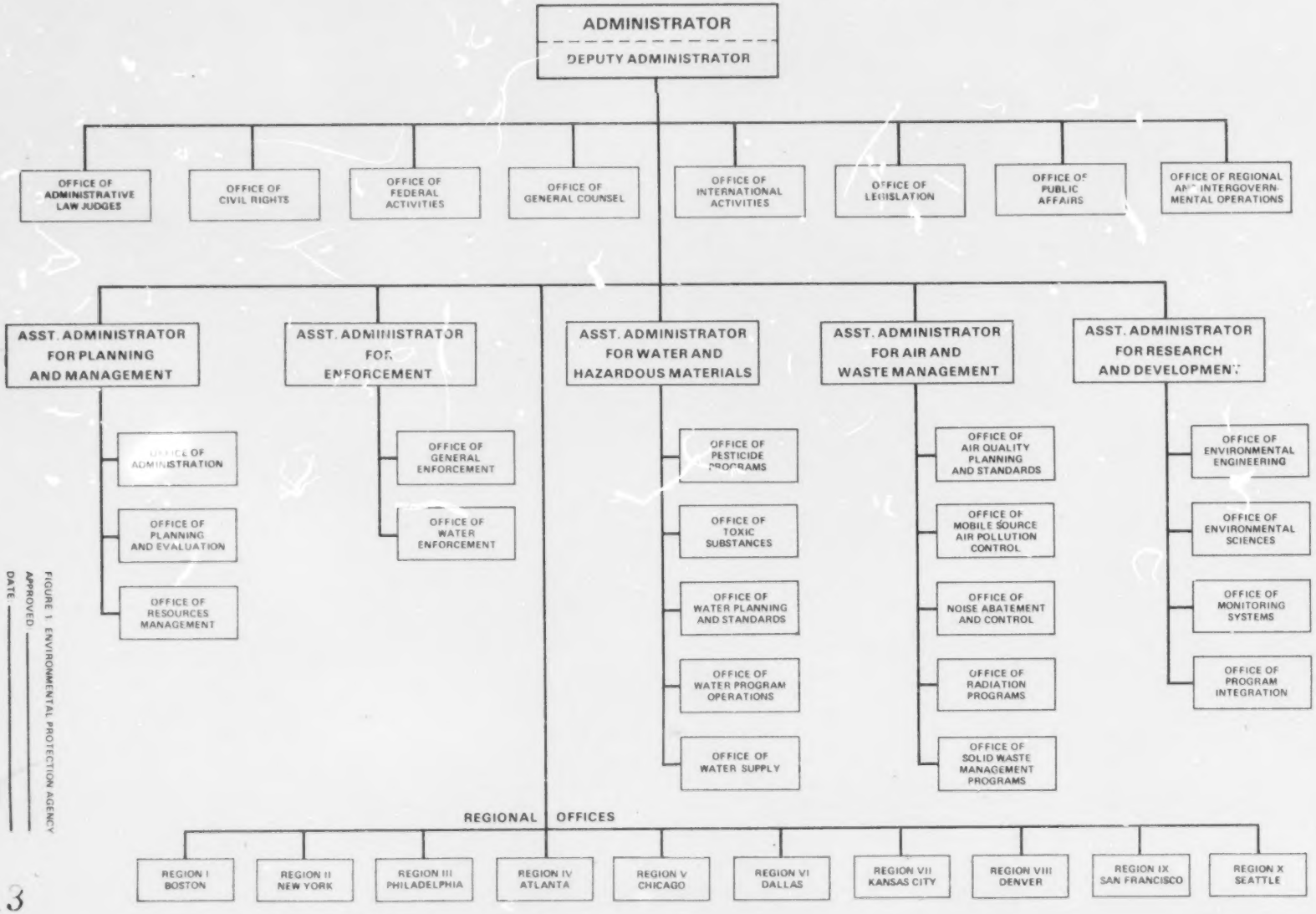
ADMINISTRATOR
DEPUTY ADMINISTRATOR
OFFICE OF ADMINISTRATIVE LAW JUDGES
OFFICE OF CIVIL RIGHTS
OFFICE OF FEDERAL ACTIVITIES
OFFICE OF GENERAL COUNSEL
OFFICE OF INTERNATIONAL ACTIVITIES
OFFICE OF LEGISLATION
OFFICE OF PUBLIC AFFAIRS
OFFICE OF REGIONAL AND INTERGOVERNMENTAL OPERATIONS
ASST. ADMINISTRATOR FOR PLANNING AND MANAGEMENT
ASST. ADMINISTRATOR FOR ENFORCEMENT
ASST. ADMINISTRATOR FOR WATER AND HAZARDOUS MATERIALS
ASST. ADMINISTRATOR FOR AIR AND WASTE MANAGEMENT
ASST. ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT
OFFICE OF ADMINISTRATION
OFFICE OF PLANNING AND EVALUATION
OFFICE OF RESOURCES MANAGEMENT
OFFICE OF GENERAL ENFORCEMENT
OFFICE OF WATER ENFORCEMENT
OFFICE OF PESTICIDE PROGRAMS
OFFICE OF TOXIC SUBSTANCES
OFFICE OF WATER PLANNING AND STANDARDS
OFFICE OF WATER PROGRAM OPERATIONS
OFFICE OF WATER SUPPLY
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
OFFICE OF MOBILE SOURCE AIR POLLUTION CONTROL
OFFICE OF NOISE ABATEMENT AND CONTROL
OFFICE OF RADIATION PROGRAMS
OFFICE OF SOLID WASTE MANAGEMENT PROGRAMS
OFFICE OF ENVIRONMENTAL ENGINEERING
OFFICE OF ENVIRONMENTAL SCIENCES
OFFICE OF MONITORING SYSTEMS
OFFICE OF PROGRAM INTEGRATION
REGIONAL OFFICES
REGION I BOSTON
REGION II NEW YORK
REGION III PHILADELPHIA
REGION IV ATLANTA
REGION V CHICAGO
REGION VI DALLAS
REGION VII KANSAS CITY
REGION VIII DENVER
REGION IX SAN FRANCISCO
REGION X SEATTLE

FIGURE 1 ENVIRONMENTAL PROTECTION AGENCY

APPROVED _____

DATE _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ORGANIZATIONAL DIRECTORY

Administrator, Mr. Russell E. Train.....(202) 755-2700
Deputy Administrator, Mr. John R. Quarles..... 755-2711

Office of Administrative Law Judges
Mr. Herbert L. Perlman..... 755-7733
Office of Civil Rights
Mr. Carol M. Thomas..... 755-0555
Office of Federal Activities
Mr. Sheldon Meyers..... 755-0777
Office of General Counsel
Mr. Robert V. Zener..... 755-2511
Office of International Activities
Mr. Fitzbugh Green..... 755-2780
Office of Legislation
Mr. Robert G. Ryan..... 755-2930
Office of Public Affairs
Mrs. Patricia L. Cann..... 755-0700
Office of Regional and Intergovernmental Operations
Mr. Peter Cashman..... 755-0444

Assistant Administrator for Planning and Management
Mr. Alvin L. Alm..... 755-2900
Office of Administration
Mr. Howard M. Messner..... 755-2911
Office of Planning and Evaluation
Mr. Paul A. Brands..... 755-2920
Office of Resources Management
Mr. Richard Redenius..... 755-2744

Assistant Administrator for Enforcement
Mr. Richard H. Johnson (Acting)..... 755-2500
Office of General Enforcement
Mr. Robert L. Baum..... 755-2530
Office of Water Enforcement
Mr. John B. Molley (Acting)..... 755-0440

Assistant Administrator for Water and Hazardous Material
Mr. James L. Agee..... 755-2800
Office of Pesticide Programs
Mr. Edwin L. Johnson..... 755-8030
Office of Toxic Substances
Mr. Glenn E. Schweitzer..... 755-8040
Office of Water Planning and Standards
Mr. Kenneth Mackenthun (Acting)..... 755-0402
Office of Water Program Operations
Mr. John T. Rhett..... 426-8856

Office of Water Supply
Mr. James McDermott (Acting)..... 426-2467

Assistant Administrator for Air and Waste Management
Mr. Roger Strelow..... 755-2640
Office of Air Quality Planning and Standards
Mr. Bernard J. Steigerwald.....(919) 688-8576
Office of Mobile Source Air Pollution Control
Mr. Eric O. Stork..... 426-2464
Office of Noise Abatement and Control
Dr. Alvin F. Meyer, Jr. 557-7777
Office of Radiation Programs
Dr. William D. Rowe..... 755-4894
Office of Solid Waste Management
Mr. Arsen J. Darnay..... 755-7820

Assistant Administrator for Research and Development
Dr. Wilson Talley..... 755-2600
Office of Environmental Engineering
Mr. Albert C. Trakowski, Jr. 755-2532
Office of Environmental Sciences
Dr. Herbert L. Wiser..... 755-0655
Office of Monitoring Systems
Mr. Willis B. Foster..... 755-2606
Office of Program Integration
Dr. John L. Buckley (Acting)..... 755-2611

Region I
Mr. John A. S. McGlennon.....(617) 223-7210
Region II
Mr. Gerald M. Hansler.....(212) 264-2525
Region III
Mr. Daniel J. Snyder III.....(215) 597-9814
Region IV
Mr. Jack E. Ravan.....(404) 526-5727
Region V
Mr. Francis T. Mayo.....(312) 353-5250
Region VI
Mr. George J. Putnicki (Acting).....(214) 749-1962
Region VII
Mr. Jerome H. Svore.....(816) 374-5493
Region VIII
Mr. John A. Green.....(303) 837-3905
Region IX
Mr. Paul Defalco, Jr. .....(415) 556-2320
Region X
Dr. Clifford V. Smith, Jr. .....(206) 442-1220

MAJOR FACILITIES OF EPA

National Marine Water Quality Laboratory
Narragansett and West Kingston, Rhode Island

Edison Water Quality Research Laboratory
Edison, New Jersey

Office of Air Quality Planning and Standards
Durham, North Carolina

National Environmental Research Center
Research Triangle Park
Durham, North Carolina

Southeast Environmental Research Laboratory
Athens, Georgia

Gulf Breeze Environmental Research Laboratory
Gulf Breeze, Florida

Eastern Environmental Radiation Facility
Montgomery, Alabama

Mississippi Test Facility
Bay St. Louis, Mississippi

National Environmental Research Center
Cincinatti, Ohio

National Water Quality Laboratory
Duluth, Minnesota

Robert S. Kerr Water Research Center
Ada, Oklahoma

National Field Investigation Center
Denver, Colorado

National Enviornmental Research Center
Las Vegas, Nevada

National Environmental Research Center
Corvallis, Oregon

Arctic Environmental Research Laboratory
College, Alaska

II. PROGRAM SUMMARIES

AIR

The basic objective of the air pollution control program is to meet by July 1975, or in some instances 1977, the National Ambient Air Quality Standards which are the allowable level of pollutants necessary to protect public health (primary standards) and welfare (secondary standards). Standards have been set for total suspended particulates, sulfur dioxide, nitrogen dioxide, carbon monoxide, photochemical oxidants and hydrocarbons. The first three pollutants are emitted primarily from stationary sources such as power plants and industrial operations while the remaining pollutants are associated with motor vehicles.

Controlling emissions to meet the standards is handled through two major types of activities. (1) States carry out State Implementation Plans which control pollution primarily by prescribing specific emission limitations for types of polluters. (2) The Federal Government controls, by regulation, pollutants from new motor vehicles, newly constructed industrial sources and sources emitting hazardous pollutants such as mercury.

To date State Implementation Plans have been developed by the states and major portions of the plans have been approved by EPA. Schedules are being issued which require specific polluters to order and install pollution control equipment such as flue gas desulfurization equipment (scrubbers) to control sulfur oxide emissions or electrostatic precipitators to control particulate emissions. Very

often emission limitations can be met without installing new equipment by modifying the combustion or industrial process or by burning cleaner fuels. Issuing schedules, monitoring their implementation and, if necessary, taking legal action to enforce them is handled primarily by state and local agencies. Federal activity is limited to situations where the states fail to comply with the Clean Air Act. EPA provides funding support to state and local agencies (about 43% of the total cost of their operation); this support is the largest single item in the air program budget and is about one-third of the total air budget request in fiscal year 1976.

There has been marked success in reducing some pollutant levels in the past several years. The national composite trend for particulate matter (soot, smoke, etc.) concentration shows an approximate percent decline from 1970 to 1973, to a point below the level necessary to protect human health. However, in many areas, principally urban centers, the problem is still severe. For example in Los Angeles the annual mean of measured particulates in 1973 was 1.6 times the level necessary to protect human health, in Chicago 1.2 times the level, in New York City 1.5 times, while in Cincinatti the particulate concentration was right at the level necessary to protect human health. Levels of sulfur dioxide, on the other hand, in these cities were generally below the level necessary to protect human health -- largely as a result of the switch to "cleaner" fuels. Further reductions in the particulate levels should be apparent when the full effect of pollution controls is

felt in 1976 and subsequent years; at the end of fiscal year 1975, 85% of the 20,000 major stationary polluting sources are expected to be in compliance with the limitations specified in state plans or on a schedule to achieve compliance. Several categories of sources, principally metal smelters and coal fired power plants, will probably not be in compliance by mid-1975, however, largely due to the cost of installing flue gas desulfurization equipment, and the current limited availability of control equipment.

The control of pollutants from new motor vehicles is primarily a Federal activity. The Clean Air Act requires EPA to establish emission standards for new motor vehicles. The intent of this portion of the law, which was recently revised by the Energy Supply and Environmental Coordination Act of 1974, is to reduce emissions of hydrocarbons and carbon monoxide by 90% from 1970 levels. For the 1975 model year carbon monoxide and hydrocarbon emissions are approximately 60% lower than the allowable 1970 average levels and 83% lower than the average of uncontrolled pre-1968 vehicles.

Other areas where Federal regulation is the primary method of control are the establishment of national emission standards for new construction industrial sources (New Source Performance Standards) and for new and existing hazardous pollutant sources (National Emission Standards for Hazardous Air Pollutants). To date New Source Performance Standards have been proposed or established for twenty categories of new stationary sources such

as phosphate fertilizer plants, municipal incinerators, petroleum refineries and iron and steel plants. Standards will continue to be set for additional categories of sources as they provide a major tool for states to prevent the deterioration of air quality in areas that are now very "clean", the maintenance of air quality once standards are achieved, and the control of pollution from emerging industries such as coal gasification.

The major issue facing the air pollution control program is striking the proper balance between meeting environmental goals and the demands of the energy crisis. The Energy Supply and Environmental Coordination Act of 1974 provides certain power plants some of the flexibility they required to switch to coal by delaying, until 1979, the date by which they must meet State Implementation Plan requirements. Needed additional flexibility would be provided by the President's most recently proposed amendments to the Clean Air Act which would allow certain plants until 1985 to meet State plan requirements. The compliance extension is necessary for those plants which may have difficulty obtaining low sulfur coal or pollution control equipment. Regardless of the length of the compliance date extension, however, in all cases the primary health standards must not be violated.

The recent disclosure that the technology being used by most automobile manufactueres to meet emission standards, the catalytic converter, significantly increases the emissions of sulfuric acid adds a

further dimension to another significant issue facing the air pollution control program. Amendments to the Clean Air Act proposed earlier this year would have extended auto emission standards through the 1981 model year in recognition of the limitations in trying to meet both a 90% decrease in emissions and the goal of a 40% increase in auto fuel efficiency. To alleviate a potential build-up in the danger from sulfuric acid emissions, EPA proposed a staged reduction over this period. The differences between the 1975 model year interim emission standards, the standards contained in the Energy Independence Act proposed earlier this year, the standards recently proposed by EPA, and the statutory standards which must eventually be met are as follows (grams per mile):

	Hydro-carbons	Carbon Monoxide	Nitrogen Oxides
1975 Interim	1.5	15.0	3.1
Energy Independence Act (1977-1981)	.9	9.0	3.1
EPA Proposal			
1977-1979	1.5	15.0	2.0
1980-1981	.9	9.0	2.0
Statutory Standards	.4	3.4	.4

WATER QUALITY

Today, almost one stream or river mile out of every three is markedly polluted. This pollution includes oxygen demanding bacteria, nitrogen and phosphorous compounds (algae nutrients), suspended solids, and industrial waste including toxic liquids and heavy metals. These pollutants come from the discharge of waste from industrial, commercial, agricultural, and municipal sources as well as runoff from activities that cover a broad land area and are associated with agriculture, silviculture, mining and construction.

The emphasis of the water quality program has been on controlling the discharge of pollutants into the waterways from specific industrial and municipal sources. Pollution from these sources is generally easier to control (as compared to controlling runoff from agriculture and similar activities) as the source of the pollution is confined, the composition of the pollutant can be more easily determined, and control measures are easier to implement. Three major methods are required under the Federal Water Pollution Control Act to control point source pollution: issuing wastewater discharge permits, promulgating effluent guidelines and improving the coverage and efficiency of public owned waste treatment works.

Wastewater discharge permits generally require sources to reduce the level of pollution to that achievable with the "best practicable technology" by 1977. Permits to be issued in the future will require the reduction of pollution to the level achievable with the "best available technology" by 1983. The permits include schedules for installation of control equipment

or process changes. Over 50,000 permits will eventually be issued; over 24,000 have been issued to date. The bulk of the permits issued have been issued by EPA. EPA encourages state assumption of this program; to date over 20 states have accepted this responsibility.

Effluent guidelines for wastewater discharge sources have been issued for approximately 30 industries: cement manufacture, phosphate production, the rubber industry, agricultural feedlots, beet sugar processing, petroleum refining, glass manufacturing, etc. Guidance for other industries are being developed.

Through the wastewater treatment construction grants program, the coverage and effectiveness of publicly owned sewage treatment plants is being upgraded. A large proportion of the Nation's population is presently served by sewage systems that do not provide adequate wastewater treatment. The grants cover up to 75% of the costs of planning, designing and constructing sewage treatment plants -- either new construction plants or modifications to existing plants. The Federal Water Pollution Control Act Amendments of 1972 authorized $18 billion of Federal assistance.

Other aspects of the water quality program include planning assistance to control pollution in major segments of river basins, including storm water runoff and runoff from broad land areas, technical assistance to states and local authorities and research and development into the health and environmental effects of pollutants and means of controlling them. Grant assistance is also provided to state agencies to assist them in their permit issuance, monitoring and enforcement activities.

Since the enactment of the 1972 Amendments, the major emphasis in the water quality program has been on issuing "first round" wastewater discharge

permits (those designed to reduce the level of pollution to that achievable with the best practicable technology by 1977) and awarding construction grants. The emphasis is now switching to monitoring compliance with the discharge permits requirements; additional effort is being placed on increasing the rate of obligation of construction grant funds and ensuring that grant obligations quickly result in construction.

Future years' activities will be directed toward achieving the 1983 goal of making waters fishable and swimmable. Program decentralization will continue with increased delegation to the states and greater priority given to integrating program activities with the states. The additional workload will require additional sources of funds such as that which would be provided by the proposed Cleveland Bill (H.R. 2175) that would allow the states to use up to two percent of their annual wastewater treatment plant construction grant allotment for certain review and certification activities. Attention will be focused on the cost effectiveness of constructing sludge treatment facilities, particularly treatment capabilities required to meet the 1983 goal.

Wastewater Treatment Plant Construction Grants - State Allocations

	Total Authorization for Fiscal Years *1973, 74 & 75*	Total Available as of *April 1, 1975**
TOTALS	$18,000,000,000	$13,584,792,177
Alabama	95,821,100	71,797,528
Alaska	51,569,600	28,817,066
Arizona	43,259,200	35,135,547
Arkansas	81,362,800	58,242,570
California	1,894,076,900	1.549,236,299
Colorado	89,874,200	62,256,582
Connecticut	308,684,700	244,682,818
Delaware	111,035,200	85,708,840
Dist. of Columbia	146,295,800	80,628,800
Florida	691,686,500	492,427,555
Georgia	242,575,800	205,297,366
Hawaii	109,558,300	91,353,900
Idaho	38,002,500	21,105,154
Illinois	1,136,455,100	1,005,459,545
Indiana	483,619,900	398,391,198
Iowa	197,194,700	141,116,533
Kansas	112,696,700	88,892,566
Kentucky	188,609,400	148,820,305
Louisiana	154,404,100	125,362,265
Maine	153,097,200	90,912,260
Maryland	564,743,400	365,962,305
Massachusetts	573,905,000	415,102,516
Michigan	1,213,699,300	1,004,032,914
Minnesota	337,866,800	216,639,577
Mississippi	80,756,900	57,692,206
Missouri	314,797,600	221,333,938
Montana	28,222,800	13,753,278
Nebraska	77,973,500	49,330,098
Nevada	64,920,400	53,232,076
New Hampshire	153,817,300	94,075,228
New Jersey	1,300,686,700	939,761,298
New Mexico	36,265,400	31,737,294
New York	2,089,647,700	1,498,342,352
North Carolina	226,984,200	191,327,571
North Dakota	12,013,100	8,222,452
Ohio	979,291,100	808,621,889
Oklahoma	134,336,100	114,764,285
Oregon	154,189,600	92,562,113
Pennsylvania	992,798,000	724,393,750
Rhode Island	90,908,600	59,113,175
South Carolina	170,538,900	147,811,520
South Dakota	17,736,800	12,249,465
Tennessee	213,748,200	178,174,904
Texas	420,340,100	256,049,122
Utah	44,996,100	37,907,287
Vermont	45,397,400	33,193,310
Virginia	496,196,400	331,283,490
Washington	213,176,100	115,139,757
West Virginia	122,150,600	109,249,400
Wisconsin	284,762,800	197,652,155
Wyoming	8,320,100	4,469,517
Guam	12,931,200	11,187,200
Puerto Rico	169,968,400	150,148.388
Virgin Islands	15,390,700	10,516,450
American Samoa	1,554,900	1,442,400
Trust Territory of Pacific Islands	5,087,100	2,672,800

*Unobligated balance as of April 1, 1975

Water Supply

The primary objective of the water supply program is to assure that the public is provided with safe drinking water. Today there are more than 240,000 public water supply systems serving approximately 170 million people. Many of these systems are using obsolete equipment and techniques to collect, purify and deliver potable water to the public. A survey of 969 water supply systems in 1970 by the Department of Health, Education and Welfare revealed that 36 percent of the tap water samples contained one or more bacteriological or chemical constituents exceeding Public Health Service drinking water standards.

The Safe Drinking Water Act, under which EPA's program now operates, was signed into law in December 1974. The Act gives the Agency broad responsibilities and authorities to protect and improve the quality of potable water. Prior to enactment of the Safe Drinking Water Act, EPA's water supply authorities were quite limited.

Under the Safe Drinking Water Act the Federal government is to establish primary and secondary drinking water regulations. Major responsibilities for enforcing these regulations will be with the states. Primary regulations will specify maximum allowable contaminant levels necessary to protect health. Secondary regulations will specify contaminant levels necessary to protect public welfare and will apply to such characteristics as the odor and appearance of drinking water. The contaminant levels are to be established after a study conducted by

the National Academy of Sciences and no later than September 1977. Interim regulations were proposed by EPA in March 1975 to be effective in December 1976.

The states also have the primary responsibility for controlling underground injection. The state programs, which will be developed in accordance with EPA regulations, will control the injection of contaminants such as industrial by-products and municipal wastes through a permit system. While a number of states have recently shown greater reluctance to permit deep well injection system, underground disposal of contaminants is clearly an increasing problem.

The states will be assisted in developing water supply enforcement programs and underground injection permit programs through technical assistance provided by EPA and through grant assistance. Other activities that will be undertaken include a survey of the quality and availability of rural drinking water supplies. Research to be conducted will include studies of the health effects of contaminants in major metropolitan drinking water supplies with an emphasis on carcinogens, and the development of new methods to treat raw water to make it potable and of improved ways to detect and identify the existence of contaminants.

SOLID WASTES

Over four billion tons of waste are generated in the United States every year, of which over 10 million are hazardous -- that is to say, toxic, flammable, explosive, or infectious. Potential health and environmental effects vary considerably, from the direct threat of hazardous wastes to those of other wastes such as sewage sludge, abandoned cars, waste oil, and wastes from confined animal feeding operations.

EPA has formulated two strategic goals for the solid waste program: (1) to achieve acceptable and safe management of solid wastes and (2) to conserve natural resources. Resource recovery presents an alternative to disposal, and can usually be achieved at a lower cost. The potential exists to recover, from mixed municipal waste, seven percent of the annual national iron consumption, eight percent of the aluminum and 19 percent of the tin consumed. The "recovery" of energy presents an equally attractive alternative to disposal of municipal waste. The equivalent of 317,000 barrels of oil per day could be saved in 1980 if energy recovery systems were implemented in the 48 metropolitan areas where such systems appear feasible. Presently, projects are planned which will save the equivalent of 42,000 barrels of oil per day in 1980.

The basic tools employed to meet the solid waste programs goals are threefold: (1) characterization of the problems associated with solid waste management and analysis of waste management alternatives with particular attention to hazardous wastes, (2) development of improved disposal and materials recovery methods and demonstration of advanced technologies, and (3) providing technical assistance to states

and local governments to stimulate solid waste regulatory action and to help develop materials and energy recovery systems.

The priority solid wastes program activity is directed to the control of hazardous wastes. The dangers of chemical and other hazardous wastes are being evaluated and the technologies available to control this type of pollution are being assessed. As 60% of the hazardous wastes are organic and can be burned, incineration has been chosen as the first priority activity; the remaining hazardous wastes must be placed on land or treated chemically (e.g., by ion exchange, neutralization, or chelation). A major aspect of this effort is undertaking benefit-cost analyses as an aid in arriving at an appropriate guideline or standard. To date analyses have been completed for nine industries -- inorganic chemicals, petroleum refining, batteries, primary metals, organic chemicals (including pesticides and explosives), metals mining, paint and allied products, pharmaceuticals and electroplating.

Problem characterization and technology assessment is also proceeding for nonhazardous wastes. Investigatory work is being undertaken to describe the effects of leachate -- water that has soaked through waste in land disposal sites and absorbed soluble or biological agents which, in some areas, may contaminate groundwater supplies. Work is also directed toward sewage sludge disposal, particularly the heavy metals problem, and the recovery or disposal of other wastes such as oil and tires.

A major output of the problem characterization and technology assessment work is the development of guidelines for solid waste disposal. To date EPA has published two guidelines, Land Disposal and Thermal Processing. Five guidelines are being developed: one in waste collection and four in resource recovery -- including waste separation, mixed municipal solid waste recovery, and Federal procurement.

The bulk of EPA's methods development and demonstration work and technical assistance to states and local governments is directed toward resource recovery. Six projects have been started to demonstrate different types of energy and materials recovery. In St. Louis shredded solid waste is used to supplement coal at an electric power plant. The waste processing plant handles 650 tons per day and produces 80 tons of fuels and seven tons of ferrous metal for every 100 tons of waste. There are two pyrolysis projects. In San Diego, a heat flash process will be used to produce oil from organic wastes, separating ferrous metal and glass from mixed municipal solid waste. The pyrolysis project in Balitmore is producing combustible gases used to generate steam. Other projects in Wilmington, Delaware, Franklin, Ohio and Lowell, Massachusetts are demonstrating different types of material and energy recovery systems.

PESTICIDES

Pesticides are of enormous benefit to man, particularly in the area of agriculture production, sanitation and disease control. Nearly a billion pounds of pesticides, embracing 34,000 pesticide products formulated from more than 1,000 chemical compounds, are used annually in the United States. The widespread use of pesticides, more than half of which is in agriculture, particularly cotton and corn production, has increased the possibility of injury to humans and damage to the environment. According to the first Annual Report of the Council on Environmental Quality, there are, annually, between 100 and 200 human deaths in the United States from the improper use of toxic pesticides which include organophosphates such as malathion and parathion. The adverse effect on the environment of the use of less toxic but slower degrading pesticides such as the chlorinated hydrocarbons (e.g., DDT, aldrin, dieldrin and toxaphene) has been documented by measured lethal concentrations in dead wildlife. The delayed health effects to humans as these compounds, soluble in body fat, are passed on in the food chain may be many years in appearing.

EPA's pesticide program is based upon three specific approaches. One, pesticides are registered to prevent harmful products from entering the market and to require labeling to assure proper use. The 1972 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act require EPA to register, by October 1976, pesticide products for general or restricted use. Products are registered only if they perform their intended functions without unreasonable adverse effects on the environment, including humans. The registration of a pesticide may be cancelled at any time that information

surfaces that indicates continued use of the pesticide will result in unreasonable adverse effects on the environment. If an imminent threat to human health or the environment exists, the product may be suspended.

Two, the use of pesticides is controlled. Only certified applicators may apply pesticides approved for restricted use. States will certify the applicators and training will be provided through a joint effort by EPA, the agriculture Extension Service and State agencies. It is expected that over two million private applicators and over 100,000 commerical applicators will require certification by October 1976, the date specified by the Act. Operators who are not certified by October 1976 will not be allowed to use restricted use pesticides.

Three, monitoring and research are conducted to determine the health and environmental effects of pesticides. Epidemiologic studies of the acute and chronic long-term human health effects of pesticide exposure are carried out with particular emphasis on new pesticides for which industry developed human exposure data has previously been poor or non-existent. Research is being undertaken with the National Science Foundation and the Department of Agriculture to develop environmentally safe alternative pest control techniques. This area also includes routine sampling of pesticide products from manufacturing establishments and the market place to determine conformity with their labels.

RADIATION

The EPA radiation program is directed toward preventing all avoidable contamination of the environment from ionizing radiation. The need for EPA to set standards for exposure to non-ionizing radiation is being reviewed. EPA pursues these goals through three interdependent roles: (1) the development of standards and criteria, (2) assessment of the environmental impact of technology employed by other Federal agencies, and (3) surveillance of radiation levels in the environment.

EPA and the Nuclear Regulatory Commission divide responsibilities with respect to standard setting and guidance for radiation exposure. EPA is responsible for issuing generally applicable standards for the protection of the environment from all sources of radiation, including ambient standards for the total amount of radiation from all facilities in the uranium fuel cycle. The Nuclear Regulatory Commission is responsible for developing, implementing and enforcing standards for individual nuclear facilities. EPA also develops guidance for other Federal agencies. This guidance, in the form of standards, is then implemented by these agencies through regulations that they promulgate and enforce.

EPA is working on standards for both short-lived and long-lived radionuclides. Long-lived nuclides are relatively permanent pollutants and their control is particularly important in view of the expected growth in the nuclear industry. Presently EPA is developing

standards for the uranium fuel cycle, and nuclear accident protective action guidelines. Work is underway that may lead to Federal guidance on medical x-rays and to controlling exposure from radium and uranium from phosphate plants. Preliminary work is also underway for updating Federal guidance for occupational exposure to radiation.

In the area of technology assessment, EPA performs independent environmental analyses of radiation technologies being used or proposed for use by other Federal agencies. Environmental Impact Statements, required by the National Environmental Policy Act, are prepared by other agencies whenever nuclear power plants are authorized or whenever new technologies are proposed for introduction. The statements are analyzed by EPA; these analyses have considerable effect on these programs and the public's acceptance of them. Currently, the High Temperature Gas Reactor, which utilizes the thorium fuel cycle and has been proposed for use in several different sites, is being assessed. Initial EPA reviews of the Liquid Metal Fast Breeder Reactor, which employs the plutonium fuel cycle, indicated issues for which additional information is required. A continuing effort in this area is evaluation of the probabilities and potential consequences of accidental release of radioactive material. This work will provide a basis for establishing guidance in the area of emergency response planning. In addition, EPA carries on longer range studies such as evaluation of land burial techniques to dispose of low and high level radioactive wastes.

The radiation surveillance function performed by EPA provides an independent assessment of the overall condition of the radiological quality of the environment. An air monitoring network of 19 continuously operating samplers measures ambient radioactivity. This network is expanded to 74 sites when nuclear weapon testing is carried out aboveground and radioactivity is widely distributed in the Northern hemisphere. Other specific air monitoring activities are carried on to measure plutonium, carbon-14 and krypton-85 radionuclides. Water analysis and sampling programs are carried on to measure levels of tritium and other radionuclides near specific radioactive material sources and at drinking water sites. Another aspect of radiation surveillance is the computation of population radiation exposure using data on specific radionuclides released from different sources.

NOISE

Evaluation by EPA indicates that continuous exposure to environmental noise levels above 70 Ldn (weighted day-night decibel level) may be harmful to health, particularly when coupled with shorter, more intensive exposures in the workplace, during travel or in the home. About 13 million people presently reside in areas where the weighted day-night decibel level exceeds 70. About 100 million people live in areas where the decibel level exceeds 55, a level below which undue interference with activity and annoyance will not occur. To illustrate, the weighted day-night decibel level that would be found in a downtown urban area with some construction activity is 78, the operator of a power lawnmower is exposed to 85 decibels and in a wooded residential area of a city the weighted day-night decibel level would be 51.

The EPA program has several major objectives:

(1) to reduce to less than one million people, by 1992, the estimated 13 million presently exposed to average noise levels about 70 Ldn.

(2) to reduce to less than 40 million people, by 1992, the estimated 100 million presently exposed to average noise levels above 55 Ldn.

(3) to reduce, by 1980, noise levels inside new public transportation equipment to 75 decibels. (The present average level inside a city bus is 82 decibels; inside a small auto, 80 decibels).

(4) to provide adequate warning through a labeling program to individuals whose hearing is threatened when using non-occupational power equipment. (Note: although occupational noise control is within the purview of the Occupational Safety and Health Act Administered by the Department of Labor, EPA is responsible for the review of regulations controlling noise in the workplace.)

In order of priority, the major actions EPA is taking are:

(1) Reduction of airport and aircraft noise.

(2) Reduction of noise from interstate motor carriers and railroads.

(3) Protection against voluntary high level individual exposure through product labeling.

(4) Reduction of noise from construction sites.

(5) Reduction of noise in the interior of public transport.

To date, noise levels necessary to protect human health and welfare have been defined. The identification of major sources of noise has been initiated and standards and regulations designed to control noise are being promulgated.

Noise regulations have been proposed to the Federal Aviation Administration which, under the Noise Control Act, is required to hold public hearings and then to decide whether the regulations

should be issued. One regulation proposed to the FAA would require that landing approaches to jet airplanes not be below minimum altitudes which at present the FAA only "advises". If adopted, the regulation would reduce areas around airports exposed to the very highest noise levels by 20 to 25 percent. A second regulation would require the retrofit of commercial and private jet aircraft so that by June 30, 1976, one-half of the airplanes of an airline fleet must meet present FAA noise level requirements for new airplanes; by June 30, 1978, all commercial and private jet aircraft would have to meet the levels currently specified for new aircraft. A third regulation has been proposed to limit the allowable noise from new production small propeller driven aircraft; this regulation would not affect appreciably the noise around major airports, but would bring about a gradual reduction in the noise impact on rural and suburban areas. The latest regulation proposed to the FAA would require supersonic airplanes, except for those already produced or committed to production, to adhere to the same noise standards as subsonic airplanes.

Regulations have been promulgated by EPA to reduce noise from in-use interstate motor carriers (over 10,000 pounds) and proposed to reduce noise from trains. The practical effect of the interstate carrier standard would be to require replacement of mufflers or tires by about 70,000 of the more than one million trucks and buses presently in operation. The reduction of noise from train locomotives would be achieved through the installation of mufflers.

The regulations proposed by EPA to limit noise from new medium and heavy duty trucks would reduce noise emanating from 1977 model year vehicles by 6% below the level of most new trucks today, and by 13% for 1983 model year trucks. The regulations which have been proposed for portable air compressors would lower noise levels by 14%.

Other regulatory activity in the noise program centers around the development of labeling regulations which give notice to a prospective buyer of the level of noise the product emits or its effectiveness in reducing noise. Work is currently underway which will lead to the labeling of devices to protect hearing.

TOXIC SUBSTANCES

The primary objective of the toxic substances control program is to reduce the danger to man and the environment posed by toxic substances. Today there are more than 20,000 chemical substances being produced in the United States for commercial purposes, with 500 to 700 new chemicals introduced into the marketplace every year. Of this number, about 80 percent are toxic under some conditions, and about 1.5 percent are sufficiently hazardous to cause environmental concern. A number of these chemicals, such as vinyl chloride, arsenic, polychlorinated biphenyls and asbestos, have been involved in incidents which have created widespread public attention.

EPA's current toxic substances program is carried on under the authorities granted in the Agency's major legislation such as the Clean Air Act, the Federal Water Pollution Control Act, and the Solid Waste Disposal Act. These legislative authorities can be used to regulate toxic materials in an effluent or emission, or when disposed of as solid wastes. There are also provisions to regulate the transportation of toxic material and to prevent and clean up accidental spills. However, there are currently no authorities to regulate the production or use of toxic substances.

In February, 1971 the Administration proposed legislation to give EPA the authority to regulate chemical products by requiring testing, labeling, and directions for use so as to prevent them from entering the environment in harmful form. That bill passed both houses last

year in different versions, but had not cleared conference before adjournment.

The EPA toxic substances program was created in 1971 to develop a control strategy for toxic materials which cross traditional media lines. The program is developing predictive techniques for early warning in identifying substances most likely to pose a hazard to man or the environment, and implementing methods to monitor air, water and soil for selected toxic chemicals. The program is also preparing to implement the anticipated legislation by establishing the mechanism to develop reporting and data processing systems, standards for test protocols, and regulatory restrictions on the production and use of toxic substances to protect health or the environment.

RESEARCH AND DEVELOPMENT

The EPA research and development program is designed to produce the scientific information and technical tools on which to base guidelines, standards and strategies to control environmental pollution. The major thrusts of the program are in air and water pollution research, with a stong emphasis on the acceleration of energy related environmental research. There are also significant programs dealing with such specific environmental problems as solid wastes, pesticides, radiation, noise and toxic substances.

The research activities in each of these programs encompass the determination of the health, ecological, and economic effects of pollutants, the identification and characterization of pollutant sources, the study of transport, transformation and ultimate disposition of pollutants in the environment, and the development of economical means of controlling pollutant discharges. Improved sampling, analytical, data handling, and quality assurance methodologies for pollutant measurement and monitoring are being developed as are new and improved technologies for pollution control and resource recovery.

The air pollution research and development program is designed to respond to the requirements of the Clean Air Act to protect public health and walfare from the adverse effects of air pollution. Health and ecological effects studies are conducted to provide the criteria for establishing air quality standards. For example, the potential health impact of catalytic muffler related emissions is

being assessed as are the health and ecological effects of such air pollutants as hydrocarbons, particulates, and nitrogen oxides. Other work is directed to validating models for providing estimates of atmospheric oxidant concentrations, evaluating the desirability of utilizing emissions standards, rather than ambient air standards, in the development of pollutant control strategies, and developing monitoring methods and associated quality assurance procedures. In addition, the control technology R&D program seeks to identify sources requiring control, to assess the capabilities of existing control approaches, and to develop economical control technology for the major pollution sources.

The water quality research and development program is designed to develop cost effective wastewater control and treatment technologies for municipalities and industries, including processing alternatives to avert pollution and save energy and raw materials. The program also includes development of monitoring methods and quality assurance. Strategies for the management of pollution from such non-point sources as agricultural, mining, and construction activities are being developed. Emphasis is placed on determining the health and ecological effects of land disposal of sludges resulting from municipal waste water treatment, utilization of industrial residuals, achieving cost reductions in the treatment of municipal and industrial wastewater and determining the ecological effects of ocean dumping.

The water supply research and development program is structured to provide criteria on which to base the promulgation of drinking

water standards, and develop new or improved technologies for effective and economical control of drinking water contaminants. During Fiscal Year 1976 this program will be expanded in response to the recent passage of the Safe Drinking Water Act. Research efforts will focus on detecting and identifying the existence of contaminants, determining the health effects of organic, inorganic, and microbiological contaminants of drinking water, and investigating the suitability of reusing treated municipal or industrial effluents as a potable water supply. Treatment techniques for the inactivation of viruses and the removal of asbestos, trace organics, and trace metals will also be developed. A major study will be conducted to determine suspect carcinogens in major metropolitan drinking water supplies.

Solid wastes research emphasizes the development of improved solid waste disposal techniques and resource recovery technologies, as well as study of the transport processes of hazardous materials in ground water systems. The program also involves the evaluation of deep well disposal of toxic materials and the study of the persistence, in soil and ground water, of heavy metals, organic and inorganic chemicals, pesticides, herbicides, acids, and alkalies from industrial residuals and sludge.

Pesticides research emphasizes studies relating to the use of alternative pesticides and the acute inhalation effects of pesticides. Mutagenesis screening systems and alternative methods of pest control are being developed, along with the necessary monitoring and quality assurance methodologies.

The radiation research program provides an information base for standards setting and regulatory actions. The Fiscal 1976 program will focus on the health effects of non-ionizing radiation and the effects of long lived radionuclides associated with fast breeder reactors.

Noise research activities consist of a program to coordinate all the Federal noise research, development, and demonstration activities.

The EPA energy-related environmental research and development program is part of a national effort to achieve energy self-sufficiency. The purpose of the program is to provide a sound technical and scientific basis for achieving this goal while insuring protection of human health and welfare. There are two major activities: the processes and effects program to determine the environmental effects (and hence the control requirements) associated with energy extraction, transmission, conversion and end use, and a control technology program to identify, develop, and demonstrate necessary pollution control techniques. The main thrust of the processes and effects program is the acceleration of research on the health and ecological implications of new and advanced energy production technologies and conservation measures. The control technology program involves the assessment of the pollution potential of a variety of energy source effluent streams and the technological processes which produce those pollutants, as well as research and development on control devices and process modifications to reduce the impact of the pollutants on the environment.

Inherent in the above programs and in the Agency's ability to enforce standards, is a measurement and monitoring capability. A research and development program is conducted to provide the methodology, systems, instrumentation and quality assurance procedures needed to detect pollutants and their transformation products in all environmental media, and to be used in evaluating compliance with standards. The expertise in this research program is frequently called upon to provide assistance to States in their monitoring programs or in dealing with emergency situations.

AGENCY AND REGIONAL MANAGEMENT

Agency and Regional Management is funded by a separate appropriation which provides for the overall policy direction and administration of Agency programs as well as for certain common services and functions which can be most effectively managed on a centralized basis. For purposes of clarity it is useful to think of these activities as falling under two main headings: first, "management" and second, "support."

Management covers the salaries and related expenses of personnel involved in program direction or in the provision of management or administrative services and includes the following specific activities:

* Agency management which covers the top level policy direction of all Agency programs provided by the Administrator and his immediate staff and staff offices; the Agency-wide planning and management functions of the Office of Planning and Management; and the centralized administrative services provided to all operations located in Washington, D.C., Research Triangle Park, N.C. and Cincinnati, Ohio.
* Regional management which provides for the direction of program operations provided by each of the 10 Regional Administrators and the immediate staffs as well as the general management and administrative functions provided by the Management Division of each Region.

The Support area does not involve personnel and consists mainly of housekeeping or common service items; these can be characterized as follows:

* Agency support which covers the services required to support program operations at EPA Headquarters, Research Triangle Park, N.C., and Cincinnati, Ohio such as office services, printing, local communication costs, utilities, guard and janitorial services, etc. Also included are certain agency-wide services which are managed on a centralized basis such as facilities rental, postal service, charges for the Federal Telecommunications Service, centralized ADP, as well as contracts for economic and analytical studies which are utilized in connection with a variety of Agency programs.
* Regional support which includes the support service requirements of the 10 Regional offices which are not covered by the Agency-wide services noted above, and covers items such as office services and supplies, local communications, guard and janitorial services.

In EPA's budget these activities are discussed under the Agency and Regional Management appropriation. However, the estimates for that appropriation do not reflect the full amount of these costs. This is because the total amounts required for Agency and Regional support activities are allocated among the various EPA appropriations on a pro-rata basis so as to associate these quite significant costs with the various programs which benefit from them. The amounts allocated to the appropriations Abatement and Control, Research and Development and Enforcement are included under a heading entitled "Program Support" which is common to each of these appropriations. The residual amounts

allocated to the Agency and Regional Management appropriation are charged to headings under that appropriation entitled "Agency Support" and "Regional Support."

PROGRAM MANAGEMENT AND SUPPORT

Each of EPA's appropriations includes an activity entitled "Program Management and Support" which covers the direction and management of EPA's major line organizations -- Air and Waste Management, Water and Hazardous Materials, Research and Development, and Enforcement as well as the "overhead" services required to support these organizations. Specifically it includes:

* Program management which covers the program direction and administrative/management activities of the Assistant Administrators who direct EPA's major line organizations, their principal deputies, office directors, and supporting staffs. Also included are the management and supporting staff of the laboratories and other field installations which are under the management of these major line organizations, as well as the Office of the General Counsel and the legal staffs of the 10 Regional Offices.
* Program support. This includes general and technical support services required by certain of the laboratories and other field installations which are managed by EPA's major line organizations. It also includes a pro-rata share of Agency wide support costs which are allocated to the various EPA appropriations in the manner described in the previous section on Agency and Regional Management.

IV. EPA BUDGET
EPA APPROPRIATIONS STRUCTURE

EPA currently has eight individual appropriation accounts. The first six of the appropriations constitute the basic operating budget of the Agency; the latter two are exclusively grants and contracts. They are:

Research and Development - Includes research activities aimed at supporting the Agency's standards setting activities and development of new technology for the control of pollution in each "media".

Energy Research and Development - Encompasses studies of the pollution implications of the Nation's energy program and research into efficient and cost-effective methods of control.

Abatement and Control - Includes development of standards and regulations, grants and other assistance to States and localities, monitoring of the status of pollutants in the environment, and related efforts aimed at reducing and controlling pollution.

Enforcement - Primary activities are the enforcement of Federal regulations against air and water pollution, including issuance and follow up of industrial effluent discharge permits under the National Pollutant Discharge Elimination System (NPDES), enforcement of pesticides registration and product standards, and enforcement of noise standards and regulations.

Agency and Regional Management - Provides for basic central management and support activities, including overall program direction, progress assessment, program evaluation, finance, personnel, printing, facilities management, etc.

Buildings and Facilities - Construction and modification of new and existing space, safety modifications, etc.

Scientific Activities Overseas - This small appropriation is used to purchase excess foreign currencies from the Treasury Department to finance environmental research projects in such countries as Yugoslavia, Poland, Egypt India, Pakistan, etc.

Construction Grants - This appropriation finances grants to municipalities for the construction of wastewater treatment facilities. Obligational authority consists of contract authority provided under P.L. 92-500. Appropriations to liquidate the contract authority are requested as needed.

The Appropriations structure has been changing continuously since the Agency was established in 1970. Initially, the operating budget was encompassed by a single appropriation, Operations, Research and Facilities. This account was split into four pieces in FY 1973 - Research and Development, Abatement and Control, Enforcement, and Agency and Regional Management. Energy Research and Development was added in FY 1975 to cover work related to new energy programs. Buildings and Facilities, constructed from portions of each of the four operating budget

appropriations, was also added in FY 1975. Scientific Activities Overseas and Construction Grants have been separate appropriations from the inception of the Agency.

Funds appropriated under all of the accounts except Enforcement and Agency and Regional Management are available until expended. All funds appropriated under the old Operations, Research and Facilities account were also available until expended.

To provide flexibility between appropriations, Congress has approved language to permit the Agency to transfer up to seven percent of any appropriation except Construction Grants to any other appropriation. This provision enables EPA to make small fund shifts required in day to day management without obtaining Committee concurrence. Major shifts exceeding seven percent and minor shifts accumulating to more than seven percent are cleared with the Committee.

In addition to the appropriation structure, EPA plans and budgets by "media", or major program areas. The media are:

Air

Water Quality

Water Supply

Solid Waste

Pesticides

Radiation

Noise

Interdisciplinary

Toxic Substances

Energy

Program Management and Support

Agency and Regional Management

Media programs cross appropriation lines. For example, Air programs are supported by funds from Research and Development, Energy Research and Development, Abatement and Control, and Enforcement.

Program Strategies are generally developed along media lines rather than by appropriation. Consequently, it is generally easier to understand major programs on a media basis. In the interest of clarity, therefore, the EPA budget justification is organized by media. Program segments corresponding to the appropriation breaks are separately described within the total media section.

The Appropriations Committees have also placed controls on shifts between media. The Agency may add or subtract up to ten percent of the funds provided for any media. Greater changes require clearance with the Committees. Although this is not a legal restriction in the sense of the limitations on transfers between Appropriations, the practical effect is similar.

EPA APPROPRIATION HISTORY

(in thousands of dollars)

	FY 1972	FY 1973	FY 1974	FY 1975	FY 1976 (est.)
Operations, Research & Facilities	440,520	--	--	--	--
Research & Development	--	177,221	159,427	170,157	163,400
Abatement & Control	--	266,089	356,015	428,488	339,700
Section 208 Planning Grants	--	(50,000)	(100,000)	(150,000)	--
Enforcement	--	34,020	45,812	52,843	53,900
Agency & Regional Management	--	45,891	55,694	59,107	65,700
Energy & Research & Development	--	--	--	134,000	112,000
Buildings & Facilities	--	--	--	1,400	2,100
Subtotal	440,520	523,221	616,948	845,995	736,800
Scientific Activities Overseas	7,000	4,000	2,000	--	6,000
Construction Grants	2,000,000	6,900,000	4,000,000	9,000,000	--
Total	2,447,520	7,427,221	4,618,948	9,845,995	742,800

FY 1976 PRESIDENTIAL REQUEST
BY MEDIA AND APPROPRIATION

	Abatement & Control		Enforcement		Research & Development		Agency & Regional Management		Energy Research & Development		Other		Total	
	pos.	$000	pos.	$000	pos.	$000	pos.		pos.	$000	pos.	$000	pos.	$000
Air	773	77,235.1	444	12,020.0	454	47,973.6	--	--	--	--	--	--	1,671	137,228.7
Water Quality	1,729	144,521.9	744	21,293.5	581	44,892.4	--	--	--	--	--	--	3,054	210,707.8
Water Supply	175	19,860.9	5	100.0	75	12,364.2	--	--	--	--	--	--	255	32,325.1
Solid Waste	161	11,622.7	--	--	23	3,997.3	--	--	--	--	--	--	184	15,620.0
Pesticides	671	29,552.1	153	3,582.9	148	11,197.9	--	--	--	--	--	--	972	44,332.9
Radiation	174	4,337.1	--	--	57	1,640.0	--	--	--	--	--	--	231	5,977.1
Noise	75	9,592.2	10	521.7	1	45.0	--	--	--	--	--	--	86	10,158.9
Toxic Substances	45	6,850.3	--	--	11	1,209.0	--	--	--	--	--	--	56	8,059.3
Interdisciplinary	--	--	--	--	252	20,775.8	--	--	--	--	--	--	252	20,775.8
Energy	--	--	--	--	--	--	--	--	40	112,000.0	--	--	40	112,000.0
Program Mgt. & Support	195	35,975.6	169	15,643.9	177	18,536.4	--	--	--	--	--	--	541	70,155.9
Agency & Reg. Mgt.	--	--	--	--	--	--	1,837	67,358.5	--	--	--	--	1,837	67,358.5
Subtotal	3,998	339,547.9	1,525	53,162.0	1,779	162,631.6	1,837	67,358.5	40	112,000.0	--	--	9,179	734,700.0
Buildings & Facilities	--	--	--	--	--	--	--	--	--	--	--	2,100.0	--	2,100.0
Scientific Activities Overseas	--	--	--	--	--	--	--	--	--	--	--	6,000.0	--	6,000.0
Reimb. Alloc. Accounts, etc.											121	--	121	--
Total	3,998	339,547.9	1,525	53,162.0	1,779	162,631.6	1,837	67,358.5	40	112,000.0	--	8,100.0	9,300	742,800.0